

10.1 Parametric Curves

function: $y=x^2$ parametric: $x=t, y=t^2$

Feb 20-7:57 AM

$$\begin{aligned}x &= \cos(t) \\ y &= \sin(t)\end{aligned}$$

$$\begin{aligned}x &= 3\cos(t) \\ y &= \sin(t)\end{aligned}$$

$$\begin{aligned}x &= \sqrt{t} \\ y &= t-2\end{aligned}$$

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slope of a parametric curve

second derivative

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find the length of the curve $x=\cos^3(t)$ $y=\sin^3(t)$

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find the length of one arch of the cycloid $x=a(t-\sin t)$, $y=a(1-\cos(t))$

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